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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/653,994

09/04/2003

Toru Makino

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09/07/2006

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EXAMINER

LUONG, VINH

ART UNIT

PAPER NUMBER

3682

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/653,994

Applicant(s)

MAKINO ET AL.

Examiner

Vinh T. Luong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


Vinh T. Luong
Primary Examiner

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/12/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

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1. The Amendment filed on July 12, 2006 has been entered.
2. Applicant's election of Group I in the reply filed on March 31, 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
3. No claim is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on March 31, 2006.
4. The drawings are objected to because Figs. 9 and 10 should be labeled as "PRIOR ART" as described in the amended specification and Brief Description of the Drawings.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The disclosure is objected to because of the following informalities: the disclosure contains typographical or grammatical errors. For example, in the amendments to the specification:

(a) First line of the paragraph beginning at page 1, line 4, the term “a steering” at second occurrence should have been changed to “a steering wheel”;

(b) Second line of the paragraph beginning at page 1, line 24, the recitation “on which an adhesive are applied” should have been changed to “on which an adhesive is applied”; and

(c) Third line of the paragraph beginning at page 2, line 13, the recitation “the moisture in causes” should have been changed to “the moisture causes.”

Appropriate correction is required.

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 9 recites “the adhesive sheets further comprise a Japanese paper.” However, it is unclear, *inter alia*, (a) what type of paper is Japanese paper; (b) the Japanese paper is made of

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what chemical composition(s); and (c) what is(are) the difference(s) between the Japanese paper and the paper made, *e.g.*, in the USA.

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 5, 9, and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear whether the term that appears at least twice, such as, “a moisture resistant adhesive resin” in claim 5/1 refers to the same or different things. See double inclusion in MPEP 2173.05(o).

The term “a Japanese paper” in claim 9 is not understood. It is unclear, *e.g.*, what type of paper is considered to be “Japanese paper.”

The Markush group in claim 10 is improper since it does not recite the closed term “consisting of.” See MPEP 2173.05(h).

10. Claims 4, 6-8, and 11-15, and claims 5, 9, and 10, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art (APA).

Regarding claim 4, APA shown in Applicant's Figs. 9 and 10 and described in paragraphs [0007]-[0010] of Applicant's specification teaches a steering wheel 13, comprising:

a core 14; and

a surface material 15 covering the core 14, the surface material 15 comprising a plurality of ligneous thin plates (not shown) adhered together by adhesive sheets (not shown). See the description “First, ligneous thin plates, which are applied with an adhesive, are laminated

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and adhered, and thereby the ligneous plywood layer 17 is prepared” in paragraph [0008] of Applicant’s specification) and a decorative material 16 located outward of the ligneous plates (not shown).

APA teaches the invention substantially as claimed. However, APA does not explicitly teach the adhesive sheet comprising a non-woven base material in which a moisture resistant adhesive resin is permeated.

It is common knowledge in the art to use the adhesive sheet comprising the non-woven base material in which a moisture resistant adhesive resin is permeated in order to prevent cracking of APA’s ligneous thin plates and decorative material. The adhesive comprising the non-woven base material in which a moisture resistant adhesive resin is permeated in order to prevent cracking is notoriously well known as evidenced by the art cited. For example, see column 5, lines 9-13, and claim 17 of US Patent No. 5,840,144 issued to Schumacher et al. and cited by Applicant; English Abstract of Japanese Utility Model 4-161331; Abstract of US Patent No. 6,645,565 B2 issued to Veiga; English Abstract of Japanese Utility Model 3-239543; and column 2, lines 39-46 and column 3, lines 28-41, of US Patent No. 4,890,656 issued to Ohsumi et al.).

It would have been obvious to one having ordinary skill in the art to use the well known adhesive sheet comprising a non-woven base material in which a moisture resistant adhesive resin is permeated in order to prevent cracking of APA’s ligneous thin plates and decorative material as taught or suggested by common knowledge in the art. It is well settled that the selection of a known material based on its suitability for its intended use supported a *prima facie* obviousness determination. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65

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USPQ 297 (1945); *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious); and MPEP 2144.07.

Regarding claim 5, APA further teaches an additional adhesive sheet located between the ligneous plates (17) and the decorative material 16 for adhering the decorative material 16 to the ligneous plates (17). See the description “After that, the ligneous plywood layer 17 is adhered to the surface decorative material 16” in paragraph [0008] of the specification.

It is common knowledge in the art to use the adhesive sheet comprising the non-woven base material in which a moisture resistant adhesive resin is permeated in order to prevent cracking of APA’s ligneous thin plates and decorative material. The adhesive comprising the non-woven base material in which a moisture resistant adhesive resin is permeated in order to prevent cracking is notoriously well known as evidenced by the art cited above.

It would have been obvious to one having ordinary skill in the art to use the adhesive sheet comprising a non-woven base material in which a moisture resistant adhesive resin is permeated in order to prevent cracking of APA’s ligneous thin plates and decorative material as taught or suggested by common knowledge in the art.

Regarding claim 6, the shape of the ligneous plates is a flat planar shape since they are laminated thin plates. The instant planar shape is notoriously well known as admitted by Applicant in the description “As a steering having a such structure, for example, a steering comprising a ligneous sliced veneer as the surface decorative material is disclosed in Unexamined Japanese Patent Application, First Publication No. 2001-3095” cited in paragraph [0009] of the specification.

Regarding claim 7, the ligneous plates (17), adhesive sheets (not shown), and decorative material 16 are laminated together. *Ibid.* paragraphs [0007]-[0010].

Regarding claim 8, the core 14 and the surface material 15 are integrally formed with one another as seen in Fig. 9. It is well settled that the term “integral” is not restricted to a one-piece article. The term “integral” is sufficiently broad to embrace constructions united by such means as fastening and welding. See *In re Hotte*, 177 USPQ 326 (CCPA); *In re Clark*, 102 USPQ 241 (CCPA); *In re Dike*, 157 USPQ 581 (CCPA); *In re Kohno*, 157 USPQ 275 (CCPA); and *In re Morris*, 43 USPQ2d 1753, 1757 (CAFC 1997).

Regarding claim 9, the use of Japanese paper adhesive sheet to prevent cracking is notoriously well known. See, *e.g.*, column 2, lines 39-46, of US Patent No. 4,890,656 issued to Ohsumi et al.

Regarding claim 10, the use of the adhesive resin, such as, urea resin is notoriously well known. See, *e.g.*, column 2, lines 39-46, of US Patent No. 4,890,656 issued to Ohsumi et al.

Regarding claims 11 and 12, note that the amount of adhesive resin relative to the area of the base material of the APA inherently must be in a certain range.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to perform routine experimentation to change the certain range of the amount of adhesive resin relative to the area of the base material of the APA to the range as claimed in order to improve the bonding of the ligneous plates and the decorative material. See MPEP 2144.05.

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Regarding claim 13, the non-woven fabric made of chemical fibers is notoriously well known as evidenced by the art cited (see, *e.g.*, the nonwoven fabric of synthetic fibers or glass fibers in US Patent No. 4,890,656 issued to Ohsumi et al.).

Regarding claim 14, the non-woven fabric made of polyesters is notoriously well known as evidenced by the art cited (see, *e.g.*, the nonwoven fabric of polyesters in English Abstract of Japanese Utility Model 3-239543).

Regarding claim 15, the surface material 15 of APA is formed of two halves connected together at their edges as seen in Applicant's Fig. 9.

11. Claims 4, 6-8, and 11-15, and claims 5, 9, and 10, as best understood, are further rejected under 35 U.S.C. 103(a) as being unpatentable over APA in view of Ohsumi et al. (US Patent No. 4,890,656).

Regarding claim 4, APA shown in Applicant's Figs. 9 and 10 and described in paragraphs [0007]-[0010] of Applicant's specification teaches a steering wheel 13, comprising:

a core 14; and

a surface material 15 covering the core 14, the surface material 15 comprising a plurality of ligneous thin plates (not shown) adhered together by adhesive sheets (not shown). See the description "First, ligneous thin plates, which are applied with an adhesive, are laminated and adhered, and thereby the ligneous plywood layer 17 is prepared" in paragraph [0008] of Applicant's specification) and a decorative material 16 located outward of the ligneous plates (not shown).

APA teaches the invention substantially as claimed. However, APA does not explicitly teach the adhesive sheet comprising a non-woven base material in which a moisture resistant adhesive resin is permeated.

Ohsumi teaches the adhesive sheet 2 comprising the non-woven base material in which a moisture resistant adhesive resin is permeated in order to prevent cracking and/or warping of the wooden sheet 1. *Ibid.*, col. 2, line 39-46, and col. 3, lines 28-41.

It would have been obvious to one having ordinary skill in the art to use the adhesive sheet comprising a non-woven base material in which a moisture resistant adhesive resin is permeated in order to prevent cracking and/or warping of APA's ligneous (wood) thin plates as taught or suggested by Ohsumi. See *Sinclair & Carroll Co. v. Interchemical Corp.*; *In re Leshin*; and MPEP 2144.07, *supra*.

Regarding claim 5, APA further teaches an additional adhesive sheet located between the ligneous plates (17) and the decorative material 16 for adhering the decorative material 16 to the ligneous plates (17). See the description "After that, the ligneous plywood layer 17 is adhered to the surface decorative material 16" in paragraph [0008] of the specification.

Ohsumi teaches the adhesive sheet 2 comprising the non-woven base material in which a moisture resistant adhesive resin is permeated in order to prevent cracking and/or warping of the wooden sheet 1. *Ibid.*, col. 2, line 39-46, col. 3, lines 28-41, and claims 1-25. See *Sinclair & Carroll Co. v. Interchemical Corp.*; *In re Leshin*; and MPEP 2144.07, *supra*.

It would have been obvious to one having ordinary skill in the art to use the adhesive sheet comprising a non-woven base material in which a moisture resistant adhesive resin is

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permeated in order to prevent cracking of APA's ligneous (wood) thin plates as taught or suggested by Ohsumi.

Regarding claim 6, the shape of the ligneous plates is a flat planar shape since they are laminated thin plates. See paragraph [0009] of Applicant's specification.

Regarding claim 7, APA's ligneous plates (17), adhesive sheets (not shown), and decorative material 16 are laminated together. See paragraphs [0007]-[0010] of Applicant's specification.

Regarding claim 8, APA's core 14 and the surface material 15 are integrally formed with one another as seen in Fig. 9. It is well settled that the term "integral" is not restricted to a one-piece article. The term "integral" is sufficiently broad to embrace constructions united by such means as fastening and welding. See *In re Hotte*; *In re Clark*; *In re Dike*; *In re Kohno*; and *In re Morris, supra*.

Regarding claim 9, Ohsumi's adhesive sheets comprise Japanese paper. *Ibid.* column 2, lines 39-46.

Regarding claim 10, Ohsumi's adhesive resin comprises urea resin. *Ibid.*, column 2, lines 39-46.

Regarding claims 11 and 12, note that the amount of adhesive resin relative to the area of the base material of the adhesive sheets of APA as modified by Ohsumi inherently must be in a certain range as seen in Ohsumi's examples 1-4 in columns 5 and 6 and claims 1-25.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to perform routine experimentation to change the certain range of the amount of adhesive resin relative to the area of the base material of the adhesive sheets of APA

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as modified by Ohsumi to the range as claimed in order to improve the bonding of the ligneous plates and the decorative material. See MPEP 2144.05.

Regarding claim 13, Ohsumi's non-woven fabric comprises chemical fibers such as synthetic or glass fibers. *Ibid.*, column 2, lines 39-46.

Regarding claim 14, Ohsumi's synthetic fibers inherently comprise polyesters or nylon.

Regarding claim 15, the surface material 15 of APA is formed of two halves connected together at their edges as seen in Applicant's Fig. 9.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Wikipedia, the free encyclopedia (nonwovens).

13. Applicant's arguments filed July 12, 2006 have been fully considered but they are not persuasive.

Applicant contended that "New claim 4 is narrower than now cancelled claim 1 in one respect: it requires that the adhesive sheets comprise a non-woven base material in which a moisture adhesive resin is permeated." In addition, Applicant further argued that "The art of record is silent as to the desirability of using a non-woven material in this context and does not suggest the advantageous results achieved by the use of non-woven material."

The Examiner respectfully submits that Applicant's contention is unsupported by substantial evidence in the record. For example, the Japanese Patent Application Publication No. 2001-30915 cited in Applicant's specification discloses the nonwoven fabric as evidenced by its English Abstract. Moreover, in the Notice of Reasons for Rejection of the Japanese Patent Office cited by Applicant's IDS on April 4, 2004, the Examiner of Japanese Patent Office stated the desirability of using the nonwoven material or advantageous results, such as, moisture

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prevention or damp proof. Another example, US Patent No. 5,840,144 cited by Applicant's IDS on February 9, 2004 also discloses the desirability of using the nonwoven material or advantageous results, such as, prevention of crack in crack sensitive veneers as seen in col. 5, lines 9-13. See 37 CFR 1.111(c).

The Examiner agreed with the Applicant that APA in combination with Kawada, or Cavalli does not teach the non-woven material required in new claim 4. Therefore, the previous rejection in the Office action April 12, 2006 is withdrawn. Applicant's arguments regarding the previous art rejection are deemed to be moot.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh T. Luong whose telephone number is 571-272-7109. The examiner can normally be reached on Monday - Thursday.

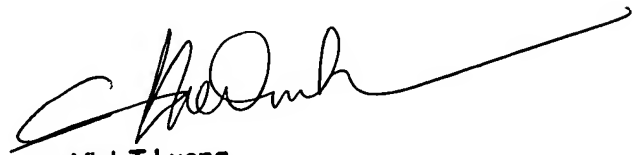
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Luong

August 31, 2006



Vinh T. Luong
Primary Examiner